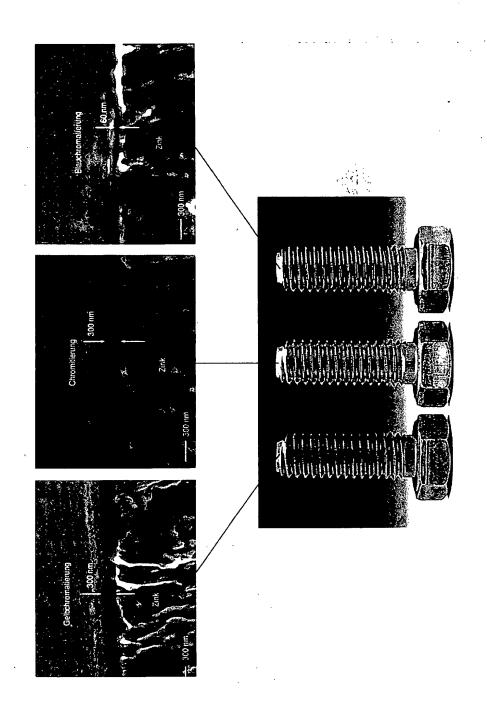


Fig. 1

ţ



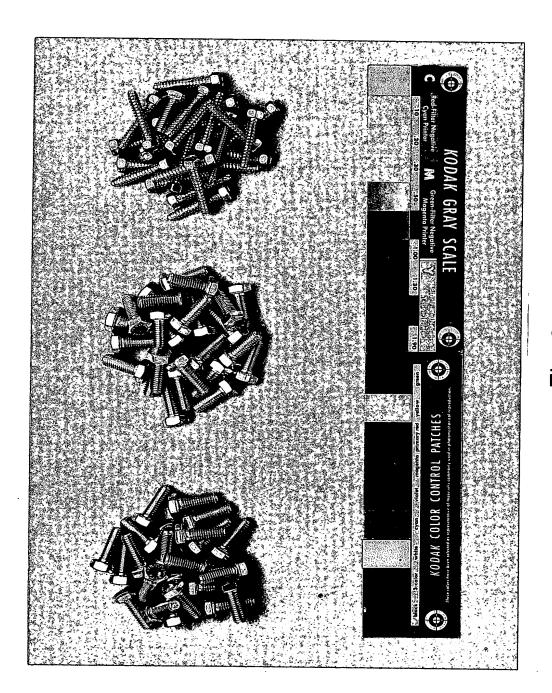


Fig. 3

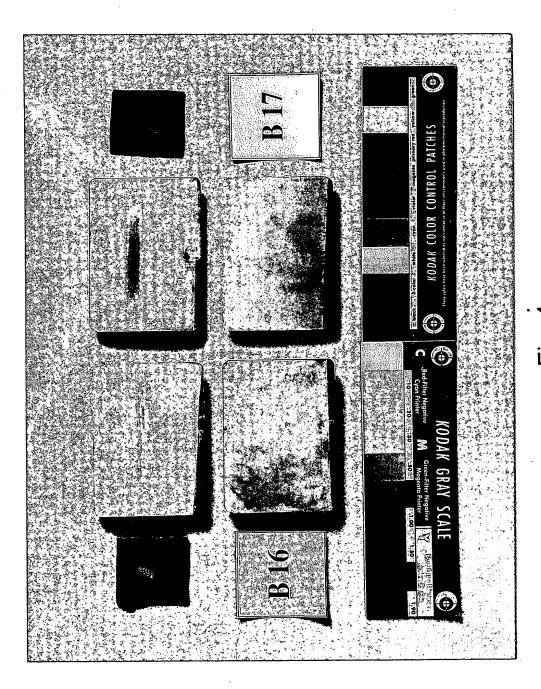
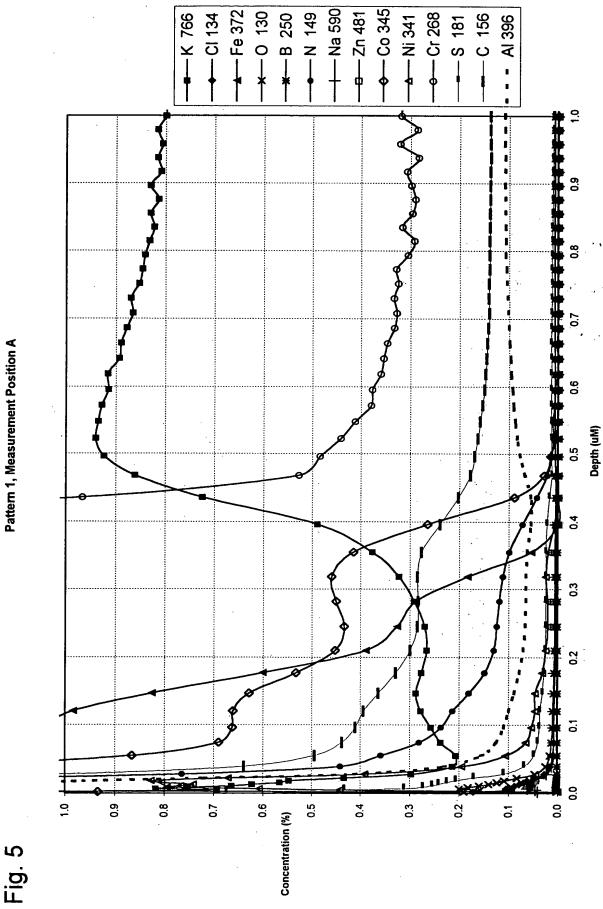
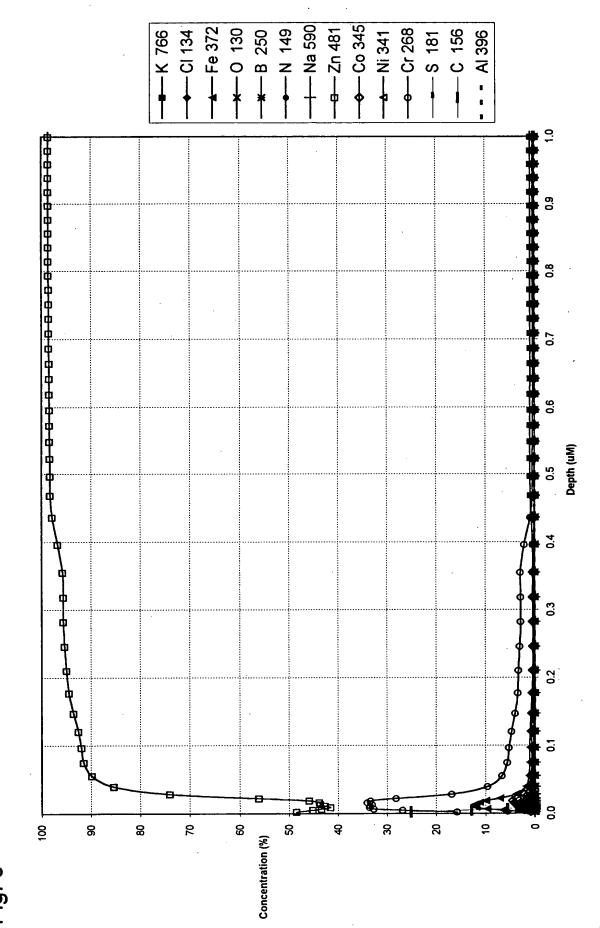


Fig. 4



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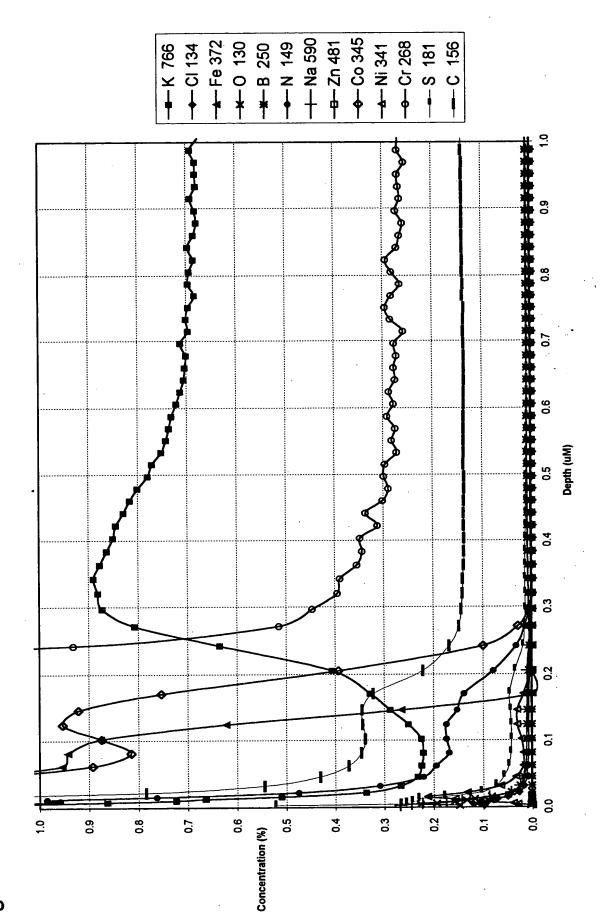
Pattern 1, Measurement Position A



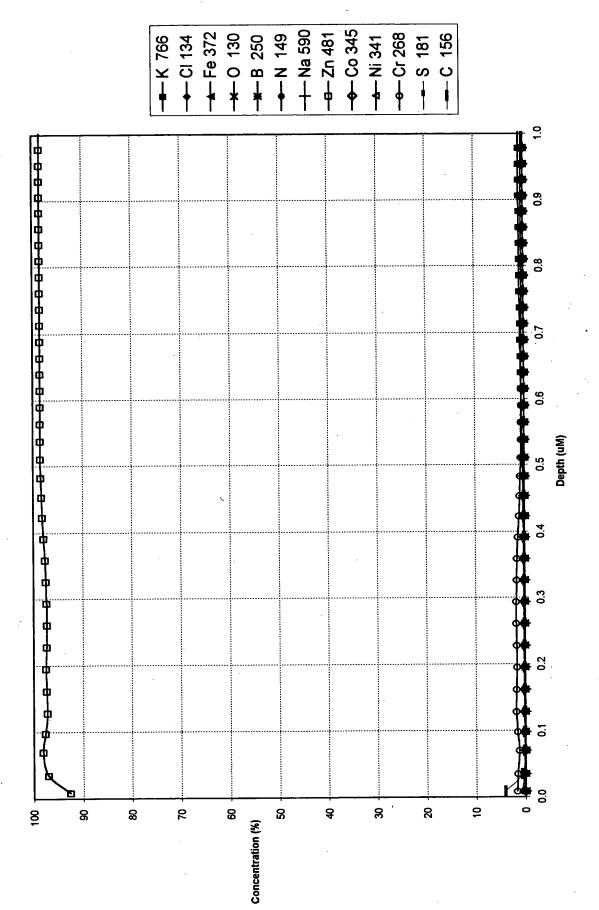
Sample 1, Measurement Position B

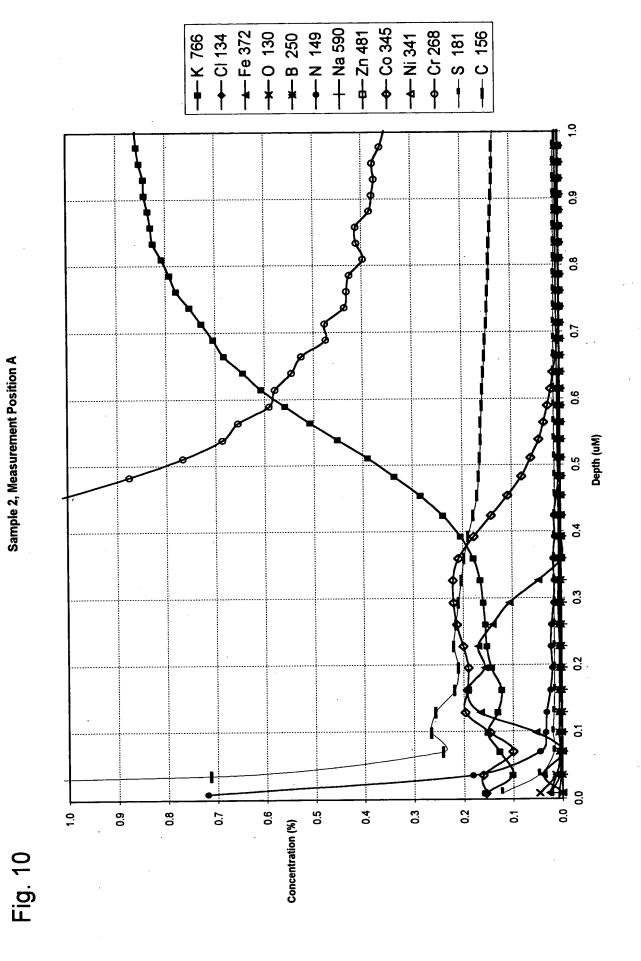
Fig. 8

Sample 1, Measurement Position B









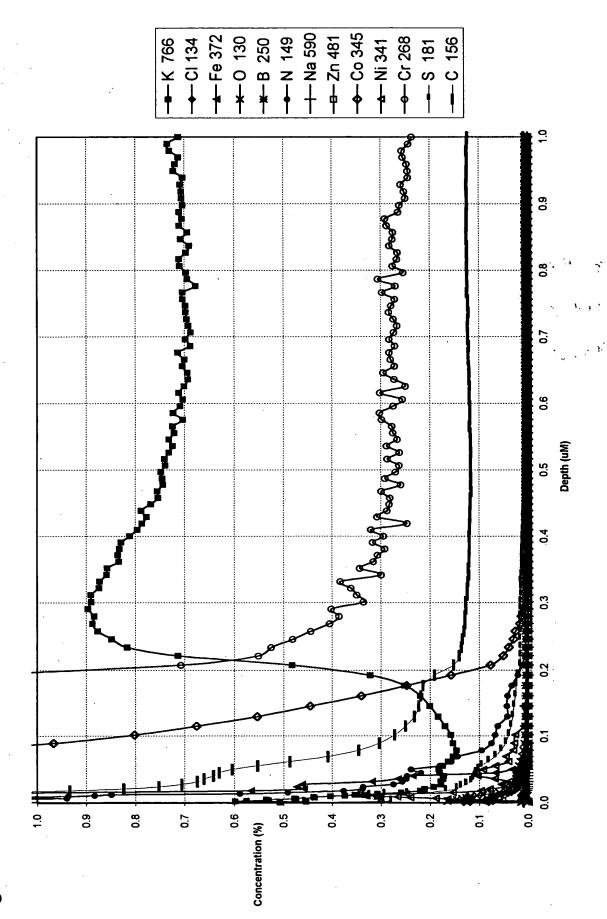
Sample 2, Measurement Position B

Fig. 12

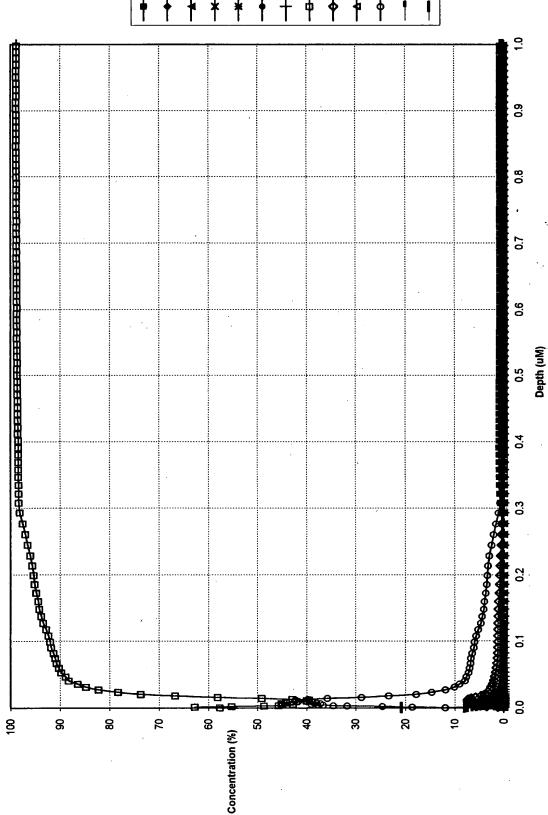
Sample 2, Measurement Position B



Sample 3, Measurement Position A



Sample 4, Measurement Position A



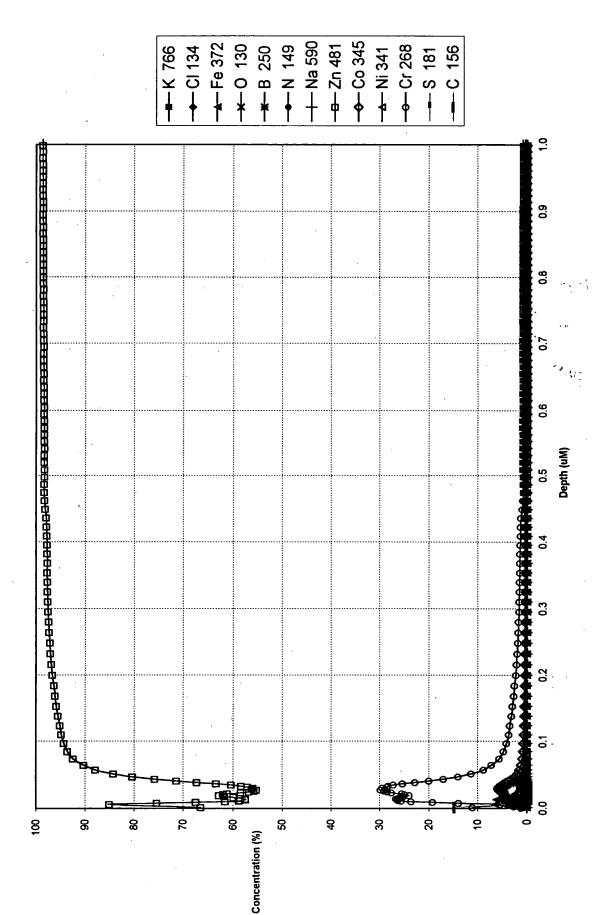
- CI 134 - Fe 372 - O 130 - N 149 - N 149 - N 290 - C 345 - C 345 - C 156 8.0 Depth (uM) 9.4 9.0 0.3 0 6.0 0.8 0.5 0.4 0.7 0.2 0.0 2. Concentration (%)

Sample 4, Measurement Position A

Fig. 16

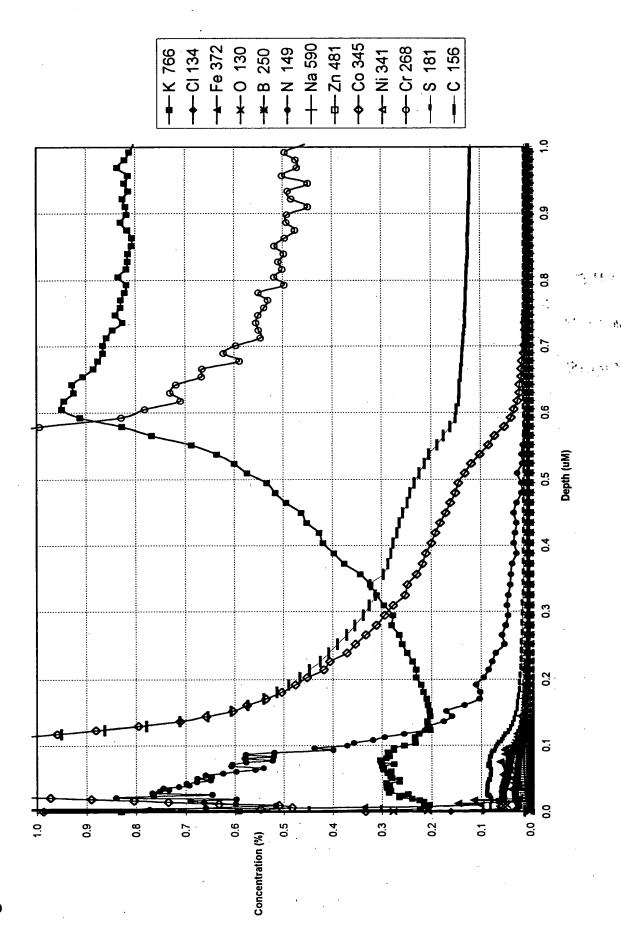
No

Sample 5, Measurement Position A

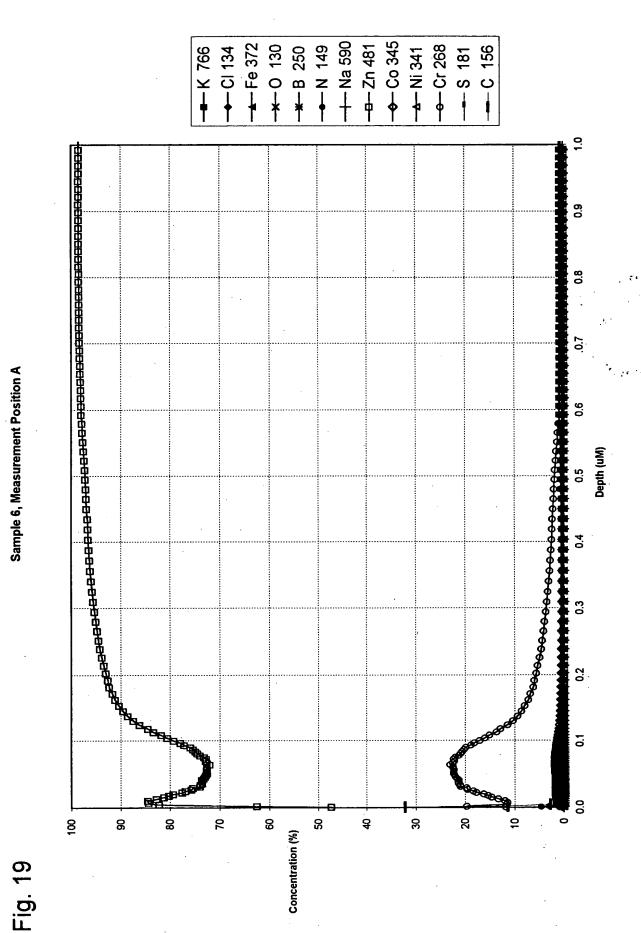


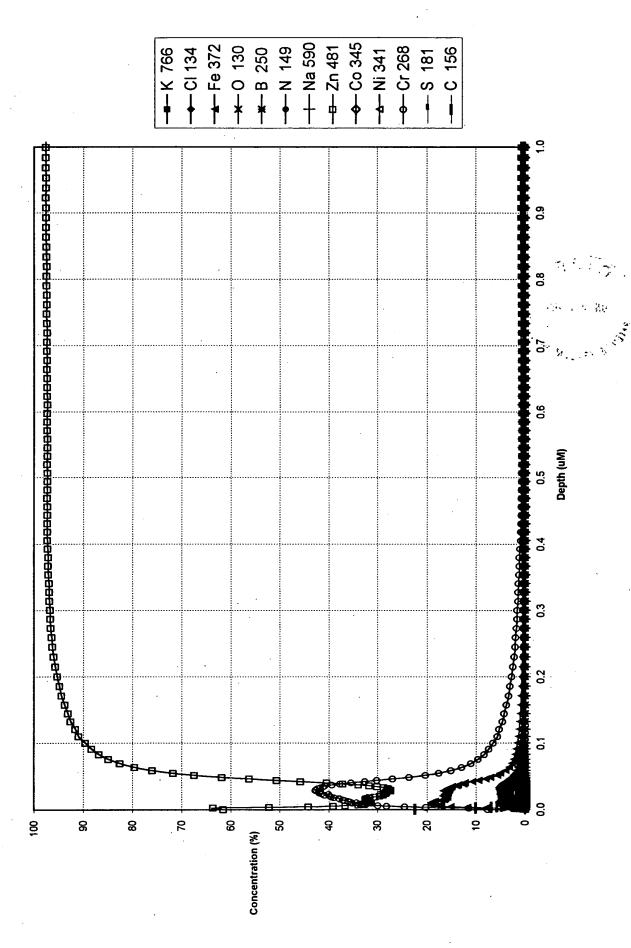
Sample 5, Measurement Position A

Fig. 18



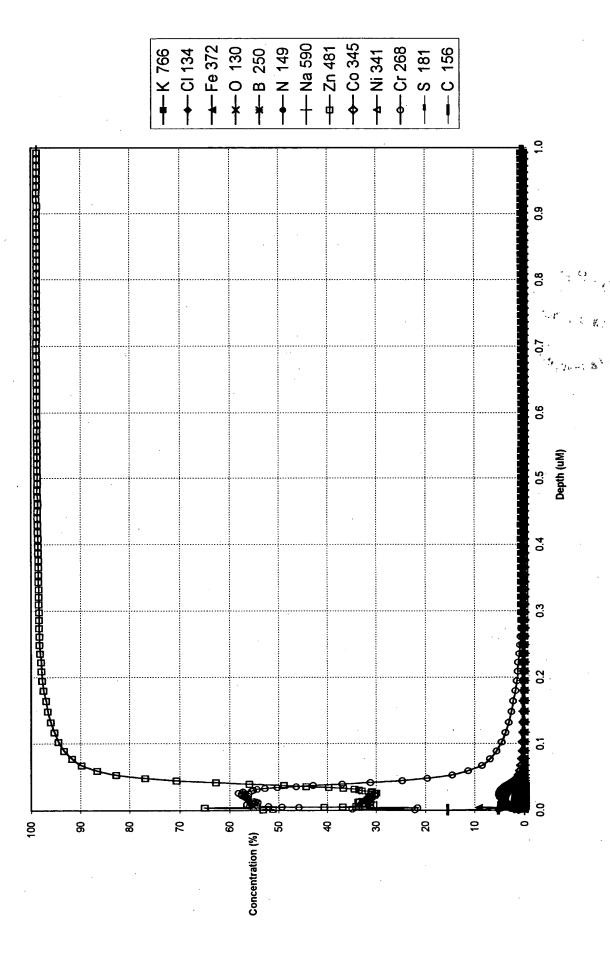




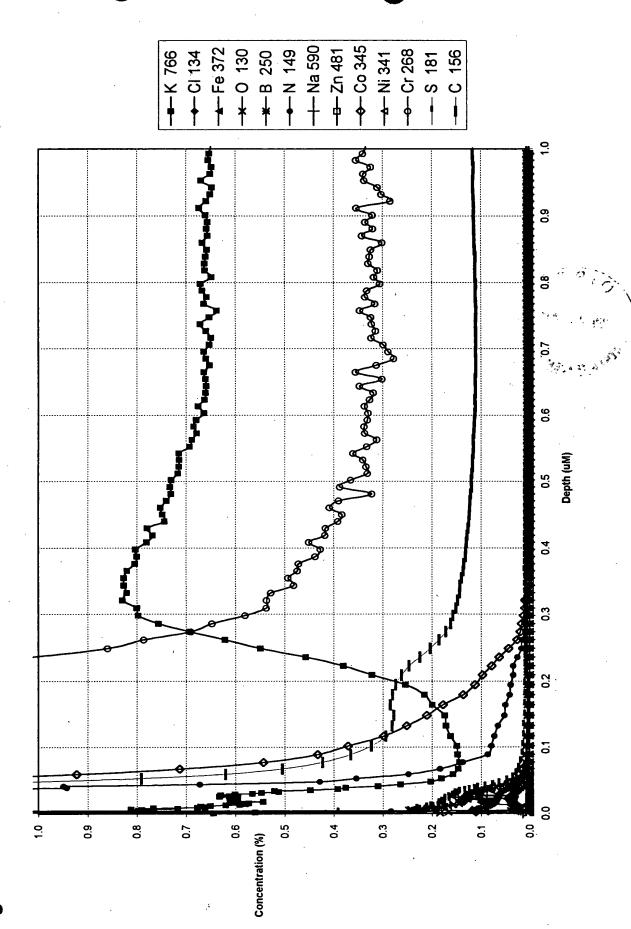


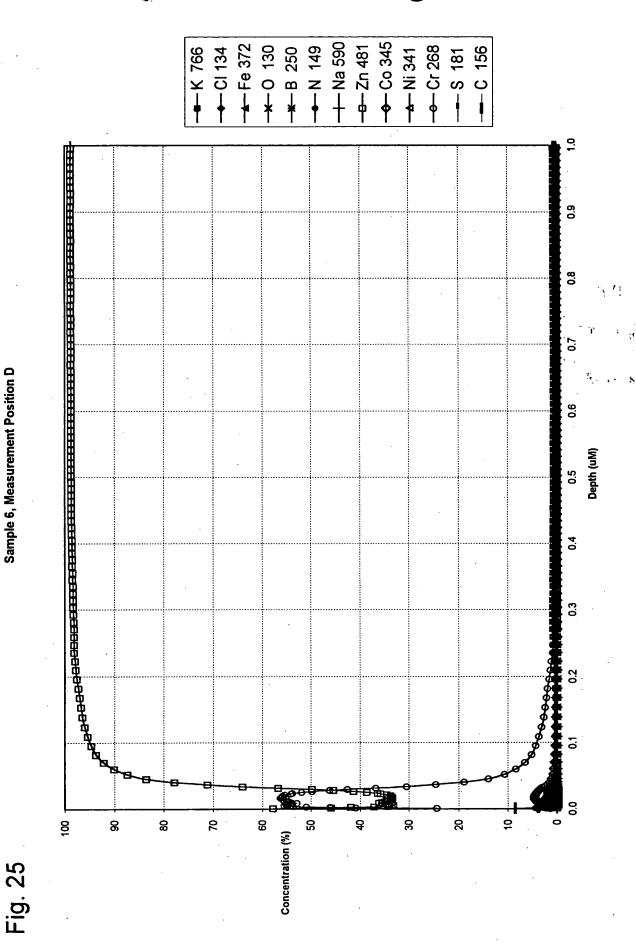
Sample 6, Measurement Position B

Fig. 23

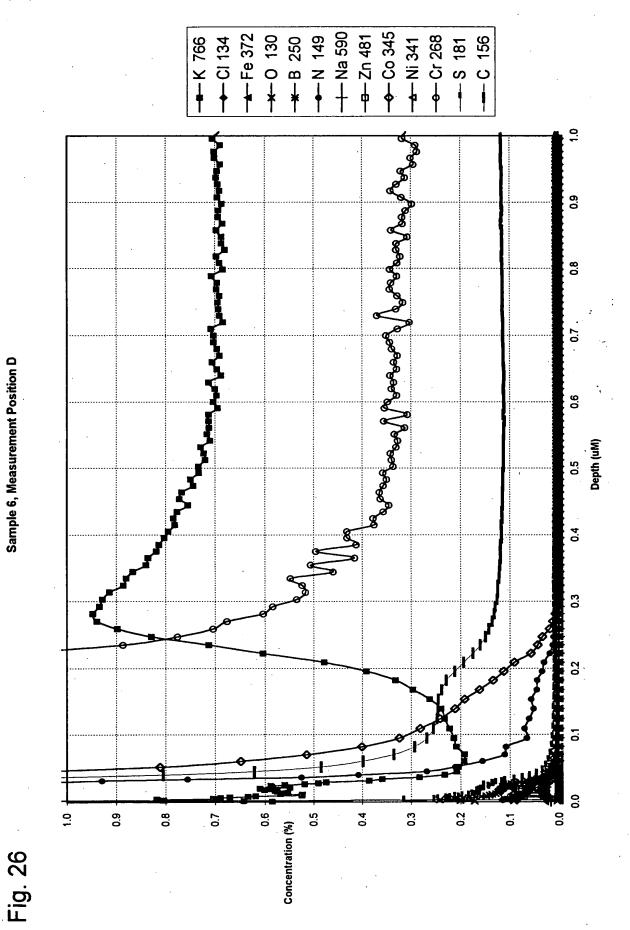


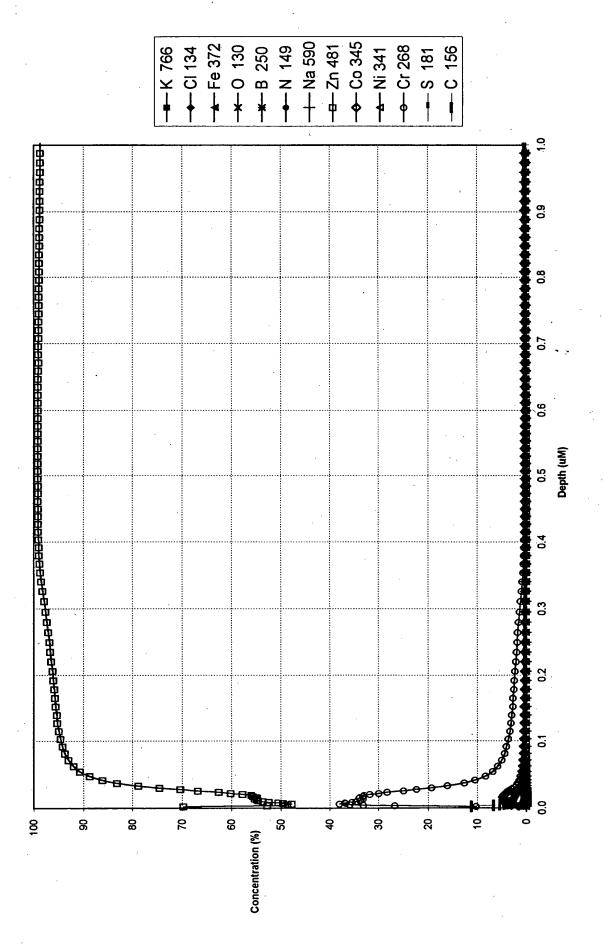
Sample 6, Measurement Position C



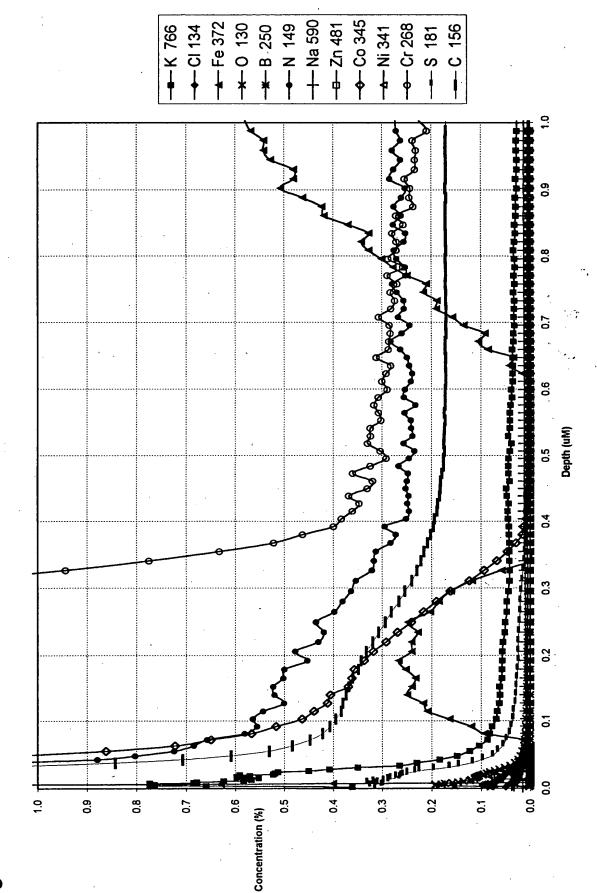


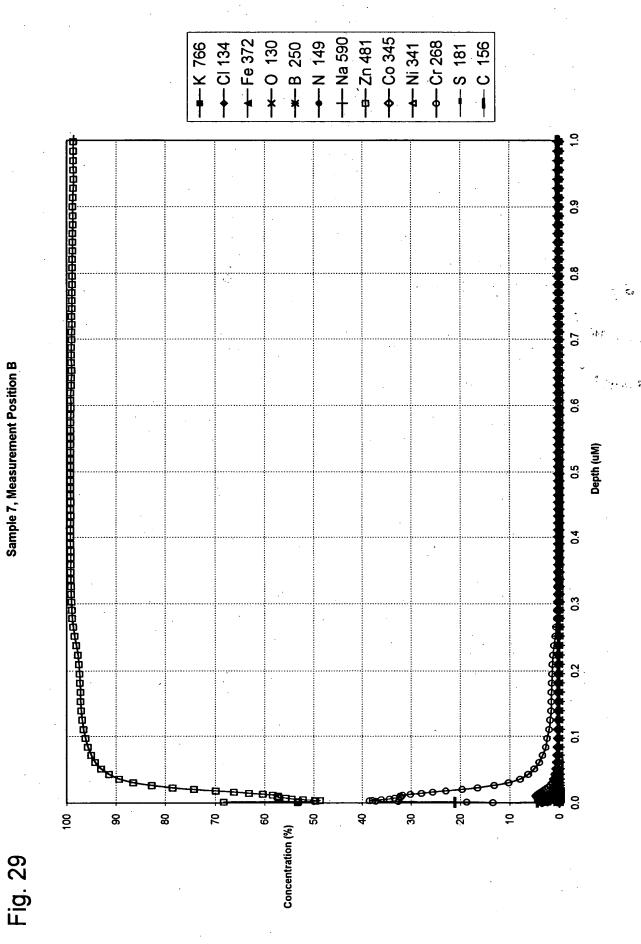






Sample 7, Measurement Position A





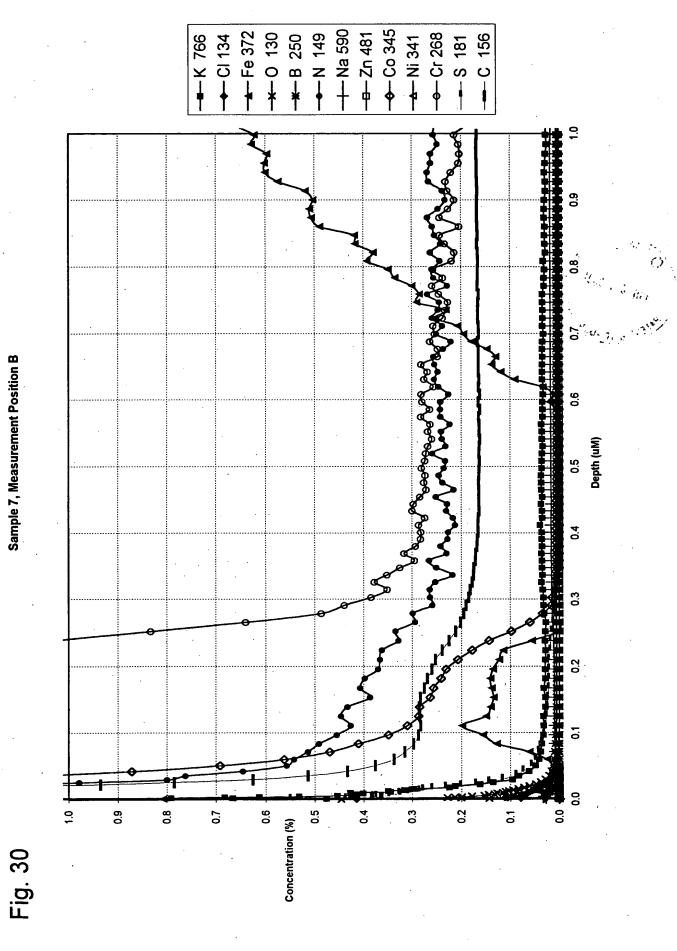
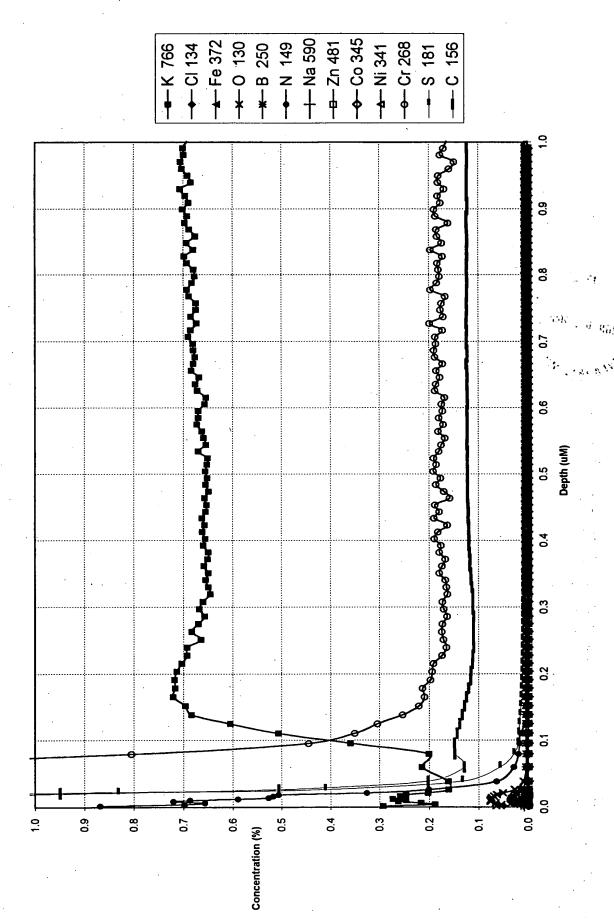


Fig. 31

Sample 8, Measurement Position A

Sample 8, Measurement Position A

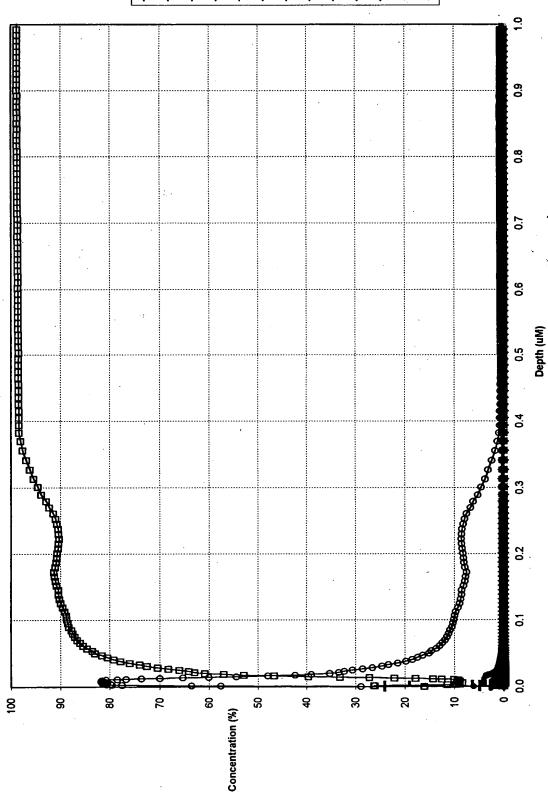


Sample 9, Measurement Position A

Depth (uM) 0.0 9.0 0.5 0.3 0.2 6.0 0.8 0. 0.4 2. 0.7 Concentration (%) Fig. 34

Sample 9, Measurement Position A

Sample 9, Measurement Position B



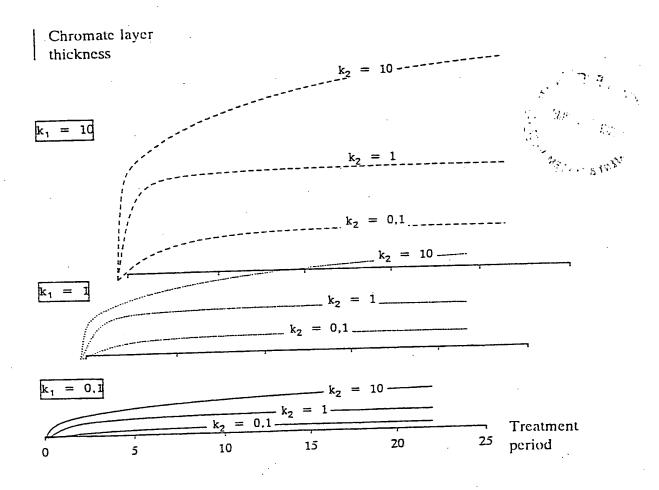
*-0 130 *-B 250 ---N 149 --- K 766 ---- CI 134 **★**-Fe 372 +-Na 590 -в-Zn 481 9.0 Depth (uM) 9.0 0.8 0.5 4.0 0.3 0.2 0.9 2. 0.0 0.7 Concentration (%)

Sample 9, Measurement Position B

Fig. 36

File pometry SEM Glow-discharge spectrometer nm nm Cr > 1% with Cr % chromium index mm Cr > 20% Sam nm Cr > 1% with Cr % chromium index mm Cr > 20% Sam Cr 11% chromium index mm Cr > 20% chromium index mm cr 20% chromium index mm chromium chromi		Methods							
nm		Ellipsometry	SEM	Glow-discharge	spectrometer				
1 98 60 60 8 5 0 0		, wu	шu	nm (Cr > 1%)	with Cr (%)	chromium index	nm (Cr > Zn)	nm (Cr > 30%)	Sample No.
1 98 60 60 8 5 0 0 0	1. Prior Art						·		
1 98 60 60 8 5 0 0	Yellow chromation				·				
Formation 98 60 60 8 5 0 0 0	Cr(III) + Cr(VI)	•	300	440		48	17	25	6
98 60 80 8 5 0 0	Blue chromation								
ention (Chromitation) 432 300 344 7 23 2 15 595 - 358 10 38 22 28 on Zn/Fe - 282 6 16 0 16 two-fold ntration 953	Cr(III)	86	09	09	80	ស	0	0	∞
on Zn/Fe tration 432 300 344 7 23 2 15 368 10 38 22 28 5, two-fold 10 10 10 10 10 10 10 10 10 1	2. Invention (Chrom	iitation)						,	
C, two-fold 144 7 23 2 15 595 - 358 10 38 22 28 C, two-fold 953	J.09					٠	*		
n Zn/Fe n Zn/Fe two-fold tration 595 - 358 10 38 22 282 6 16 0	Cr(III)	432	300	344	7	23	2	15	1,2,3,4,5
on Zn/Fe . 358 10 38 22 on Zn/Fe 282 6 16 0 b. two-fold 953	100°C								
on Zn/Fe - 282 6 16 0 2, two-fold 953	Cr(III)	595	•	358	10	38	22	28	9
282 6 16 0 5, two-fold ntration 953 -	60°C on Zn/Fe								
2, two-fold ntration 953	Cr(III)	•		282	ග	16	0	16	7
ntration 953	100°C, two-fold	-							
	concentration	953	•	•	•			•	
	Cr(III)								

Fig. 38



Computer simulation of the kinetic model of chromate coating of zinc for various rate constants